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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Carmen Flosbach

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08/22/2008

E I DU PONT DE NEMOURS AND COMPANY

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EXAMINER

LIGHTFOOT, ELENA TSOY

ART UNIT

PAPER NUMBER

1792

NOTIFICATION DATE

DELIVERY MODE

08/22/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-Legal.PRC@usa.dupont.com

Office Action Summary	Application No. 10/791,996	Applicant(s) FLOSBACH ET AL.	
	Examiner Elena Tsoy Lightfoot	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11, 12, 16 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11, 12, 16 and 19-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 11, 2008 has been entered.

Response to Amendment

Amendment filed on July 11, 2008 has been entered. Claims 11-12, 16, 19-21 are pending in the application.

Examiner Note

It is noted that in the absence of definition of a term “hydroxy-functional (meth)acrylic copolymer resins” in claims 11 and 12, the term “hydroxy-functional (meth)acrylic copolymer resins” were interpreted by the Examiner *broadly* as any hydroxyl-functional resins having (meth)acrylic units. The term “copolymer” means that it is made by *copolymerizing* (meth)acrylic monomers with another compound. Since claims 11 and 12 do not recite what compound is copolymerized with (meth)acrylate monomers, the hydroxyl-functional (meth)acrylate *copolymer* resin (b) of claims 11 and 12 read on *any* hydroxyl-functional copolymer of (meth)acrylate. Note that the Applicants’ specification as originally filed discloses that component (b), which is ***optional*** but *preferably* accounts for 30 wt-% to 60 wt-% of the resin solids, is one or more hydroxyl-functional binder(s), particularly hydroxyl-functional (meth)acrylic copolymer resins, hydroxyl-functional polyurethane resins and hydroxyl-functional polyester resins different from polyester polyol (a) (See Published Application, P23); examples of hydroxyl-functional binders (b) include hydroxyl-functional (meth)acrylic copolymer resins having a number average molecular mass from 1000 to 10,000 and hydroxyl values from 30 to 200, preferably from 50 to 180 mg KOH/g (See Published Application, P24). In other words, the Applicants’ specification as originally filed does not limit hydroxyl-functional (meth)acrylic copolymer resins **to particular structures**.

It is well settled that claims are to be given their *broadest* reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997).

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Rejection of claims 11, 12, 16, 19-21 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention has been withdrawn due to amendment.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11, 12, 16, 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duecoffre et al (US 6,063,448).

Duecoffre et al discloses a process comprising applying a multi-layer coating (See column 11, lines 43-45) wherein the substrate is an automobile and parts thereof (See column 1, lines 7-12; column 11, lines 46-49) having base lacquer which contains pigments such as effect pigments (claimed special effect-imparting base coat) (See column 11, lines 31-35), and a coating agent applied thereon (See column 11, lines 31-34) as a transparent clear coat (See column 10, lines 57-61) and curing said coating (See column 10, lines 61-63). The coating agent contains resin solids consisting of B) 90 to 10% by weight of one or more hydroxy-functional polyesters (***claimed component a***); A) 10 to 90% by weight of one or more hydroxy-functional (meth)acrylic copolymers (***claimed component b***); D) 5 to 50% by weight of one or more blocked polyisocyanates (See column 7, lines 37-67) and E) 5 to 40% by weight of one or more

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components based on triazine which crosslink with the hydroxyl groups of components A), B) (D and E being *claimed component c*); wherein the sum of components A) to E) adds up to 100% (See column 14, lines 1-33). The polyester resins B) preferably have number average molecular weights of 200 to 5000, most preferably 1000 to 3000, an OH number of 30 to 450 mg KOH/g, most preferably from 120 to 280 mg KOH/g, and an *acid* number of 0 to 60 mg KOH/g, most preferably from 2 to 35 mg KOH/g (See column 5, lines 55-60). The coating composition may exist as organic solvent based composition (See examples 1-5) or in a water-thinnable form (See column 10, lines 10-11).

As to claimed component (a), the polyester resins B) may be prepared using 10 to 70% by weight of a mixture of polycarboxylic acids (**claimed component a2**) including fumaric acids (See column 6, line 25) and dimeric fatty acids (See column 6, line 26) and 5 to 40% by weight of tri- and/or polyhydric alcohols such as glycerol, trimethylolpropane, pentaerythritol, dipentaerythritol (**claimed component a1**) (See column 6, lines 32-37), *diols*, *monocarboxylic* acids and other components being **optional** (See column 14, lines 40-65).

In other words, claimed component (a1) may comprise 100 wt % of tri- or higher polyhydric alcohols; and component (a2) may comprise 100 wt % of dicarboxylic acids, as required by amendment of claim 1.

As to claimed component (b), Duecoffre et al teaches that during the preparation of the binder vehicles contained in the coating media according to the invention, 50% by weight of the total amount of (meth)acrylic copolymer A) is produced in the presence of 20% by weight of polyester resin B), the remainder of polyester B) being added at a later point in time (See column 2, lines 23-62). Therefore, a (meth)acrylic copolymer A) of Duecoffre et al is a ***simple physical mixture*** of (i) a (meth)acrylic copolymer made without polyester resin B) and (ii) a (meth)acrylic copolymer made in the presence of polyester resin B). It is the Examiner's position that a copolymer (i) made *without* polyester resin B or a copolymer (ii) made in the presence of polyester resin B) or the *mixture* of (i) and (ii) read on claimed "at least one hydroxyl-functional (meth)acrylic copolymer resins" since the Applicants' specification as originally filed does not limit hydroxyl-functional (meth)acrylic copolymer resins **to particular structures**.

As to claimed concentrations of all components, if it could be argued that Duecoffre et al do not show claimed ranges of other components, it is the Examiner's position that claimed

ranges of all components would be *obvious* over Duecoffre et al because Applicants' disclosure does not provide *any evidence of unexpected results within claimed ranges*.

Declaration under 37 CFR 1.132

The Declaration under 37 CFR 1.132 filed July 11, 2008 is insufficient to overcome the rejection of claims 11, 12, 16, 19-21 based upon Duecoffre et al because the Declaration **is not commensurate in scope with claims 11 and 12**. Claims 11 and 12 recite *at least one* hydroxyl-functional binder (b) selected from the group consisting of hydroxyl-functional (meth)acrylate copolymer resins, hydroxyl-functional polyester resins without limiting them to particular structures. Therefore, hydroxyl-functional (meth)acrylate *copolymer* resins of claims 11 and 12 read on **any** hydroxyl-functional resins having (meth)acrylic units including the hybrid binder of Duecoffre et al. Note also that Declaration uses as example of the claimed invention a combination of polyester a and polyester b. However, claims 11 and 12 recite a combination of polyester a and hydroxyl-functional (meth)acrylate *copolymer* resin b. Since claims 11 and 12 do not recite what component (meth)acrylate is copolymerized with, the hydroxyl-functional (meth)acrylate *copolymer* resin b of claims 11 and 12 read on any hydroxyl-functional copolymer of (meth)acrylate.

Response to Arguments

Applicant's arguments filed July 11, 2008 have been fully considered but they are not persuasive.

(A) Applicants argue that the Examiner's position "a coating of Duecoffre would have the same properties as in claimed invention, since it is made from a coating composition substantially identical to that of claimed invention" (see last paragraph, page 4 of the final office action) is totally incorrect. Applicants have previously pointed out that Duecoffre's hybrid polymers are different from a simple physical mixture of a (meth)acrylic copolymer and polyester polyol of Applicants' invention. Duecoffre's clear coat contains a hybrid binder comprising polyester polyol as one part, and the (meth)acrylic copolymer as the second part, The polyester is not the polyester (a) of the composition used in Applicants' process. Duecoffre formulates a hybrid polymeric system by forming a (meth)acrylic copolymer by free-radically polymerizing monomers in the presence of hydroxy-functional polyesters. (See Duecoffre, col. 1, lines 63-66, col. 2, lines 57-59, col. 12, Example 3 and claim 1.)

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The Examiner respectfully disagrees with this argument. As was discussed above, (meth)acrylic copolymer resins of claim 11 and 12 read on *any copolymer* resin having hydroxyl groups and (meth)acrylic units including a (meth)acrylic copolymer of Duecoffre formed by free-radically polymerizing monomers in the presence of hydroxy-functional polyesters because claims 11 and 12 do not recite what compound is copolymerized with (meth)acrylate monomers.

(B) Applicants argue that the attached declaration submitted under 37 C.F.R. § 132 by Dr. Flosbach, clearly shows the surprising and unexpected results of Applicants' compositions when compared to the coating composition of Duecoffre that require the use of hybrid polymers. The declaration shows that the following polymer compositions were prepared: Polyester polyol (a) of Example 1 of the subject application, a non-aromatic polyester polyol within the scope of claims 11 and 12 of the polyester polyol (a) of these claims. Polyester polyol (b) described in Example 1 of the subject application. Using the above polymer compositions six base compositions were formulated as shown in Table I of the declaration. Base I only contained polyester polyol (b). Base II, **the invention**, contained a combination of polyester polyol (a) and polyester polyol (b). Comp. Base III contained polyester polyol (b) and Comparison Polyester C (Duecoffre, Ex. 1). Comp Base IV contained polyester (b) and Comparison Acrylic/Polyester D (Duecoffre, Ex. 2). Comp Base V contained only Comparison Acrylic/Polyester E (Duecoffre, Ex. 3). Comp Base VI contained only Comparison Acrylic/Polyester F (Duecoffre Ex. 4). "Comp" indicates a comparative composition. Table II of the declaration shows the coating compositions that were prepared and tested.

The Examiner respectfully disagrees with this argument. First of all, it is not clear why Applicants compare inventive combination of polyester polyol (a) and polyester polyol (b) with a combination of polyester polyol (b) with Polyester C or with Acrylic/Polyester D or with Acrylic/Polyester F, which combinations were never discussed by the Examiner. Second, showing of unexpected results would have been proper if Applicants compared a combination of polyester polyol B with (meth)acrylic copolymer made *without* polyester resin B) with a combination of polyester polyol B with (meth)acrylic copolymer made in the presence of polyester resin B) (hybrid) because Applicants argued about improper use of hybrid as *(meth)acrylic copolymer* not improper Polyester C or Acrylic/Polyester D or Acrylic/Polyester F. Third, as discussed above, the Declaration is insufficient to overcome the rejection based upon Duecoffre et al because the Declaration **is not commensurate in scope with claims 11 and 12.**

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy Lightfoot whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Friday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy-Lightfoot, Ph.D.
Primary Examiner
Art Unit 1792

August 21, 2008

/Elena Tsoy Lightfoot/

Primary Examiner, Art Unit 1792